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EXAMINER	
WYSZOMIERSKI,G	
ART UNIT	**PAPER NUMBER**
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D1M1/0906
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DATE MAILED: 09/06/94

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☒ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☒ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1-29 are pending in the application.
   Of the above, claims 1-7 and 23-29 are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 8-22 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-7 and 23-29, drawn to an alloy, classified in Class 148, subclass 302.

II. Claims 8-22, drawn to a method, classified in Class 75, subclass 348.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case the product as claimed can be made by another, materially different process, such as by a melt spinning process

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and recognized divergent subject matter restriction for examination purposes as indicated is proper.

During a telephone conversation with Clair Mullen on August 24, 1994 a provisional election was made without traverse to prosecute the invention of group II, claims 8-22. Affirmation of

this election must be made by applicant in responding to this Office action. Claims 1-7 and 23-29 are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Claims 19 and 20 are rejected under 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

The independent claim states that at least 50% of the total rare earth content is Nd. Therefore, claims 19 and 20, which state that a certain amount of other elements can be substituted for Nd, do not further limit the independent claim, but rather broaden it in scope.

Claims 15 and 16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The dependency of these claims appears to be mistaken. No size reducing or jet milling step is present in claim 14, on which these claims depend. This deficiency renders it impossible to determine the metes and bounds of these claims; thus no prior art is being applied against these claims at this time.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Evaluations of the level of ordinary skill in the art requires consideration of such factors as various prior art approaches, types of problems encountered in the art, rapidity with which innovations are made, sophistication of technology involved, educational background of those actively working in the field, commercial success, and failure of others.

The "person having ordinary skill" in this art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The evidence of record including the references and/or the admissions are considered to reasonably reflect this level of skill.

Claims 8, 14, and 18-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Cunningham et al. or Japan '133.

The prior art discloses carburizing and oxidizing of iron-based materials, the oxidizing step occurring in air. See claim 2 of Cunningham, or the abstract of '133. The prior art does not specify the alloy compositions recited in the instant claims. However, given that all process steps appear to be the same in both the prior art and the instant claims, and given further that no evidence of record points toward any criticality of the recited composition, the examiner holds that performing the process of the prior art on any iron-based composition, e.g. those recited in the claims, would have been an obvious expedient to one of ordinary skill in the art, given the disclosure of Cunningham or Japan '133.

Claims 8, 14, and 17-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Dawes et al.

Similarly, Dawes discloses carburizing and oxidizing of iron-based materials. The atmosphere used in Dawes may be either the air of instant claim 14, or the carbon dioxide of claim 17. See Dawes column 7, lines 8-13. The arguments made above with respect to the composition of the material being treated apply equally as well in this instance. Consequently, for the same reasons as set forth above, the disclosure of Dawes would have rendered it obvious to one of ordinary skill in the art to

perform the claimed process steps using the atmospheres as presently claimed.

Claims 9-13 are rejected under 35 U.S.C. § 103 as being unpatentable over Cunningham, Dawes et al., or Japan '133, as discussed above, any of which in view of Miyakawa or Kim.

Miyakawa and Kim disclose the conventionality of subjecting magnetic particles to zinc stearate followed by jet milling. See example 1 of Miyakawa, or column 2, lines 40-45 of Kim. The process of Kim specifically applies these steps to rare earth-iron-boron magnetic particles. Because of the conventionality of these steps, one of ordinary skill in the art would have been motivated to apply them to a carburized or oxidized material as well, e.g. the materials of Cunningham, Dawes, or Japan.

The specification is objected to because:

1) In Table I, in the column labeled "misorientation", a division sign should be inserted after the closed parenthesis, and

2) In the formula recited at page 7, the square brackets should be eliminated.

Any inquiry concerning this communication should be directed to George Wyszomierski at telephone number (703) 308-2531.

G.Wyszomierski:mm
September 01, 1994

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1100